REMARKS

If the Examiner believes that there are any unresolved issues in any of the claims now pending in the application, the Examiner is urged to telephone Aubrey Helms, Jr., Ph.D. at (408) 504-8199 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Reference to paragraph numbers or line numbers for the present invention will be based on the USPTO Published Application 2006/0003077 A1 published on January 5, 2006. The Examiner has objected to the use of this form of the application since the publication is not before the Examiner. Applicants submit that the numbering of the paragraphs in the PGPUB allows faster and more accurate citation of the support for the arguments within the specification. Applicants have included a copy of the PGPUB with this response so that this document may be made part of the record for this application. Applicants respectfully refer to MPEP § 714 II(B)(1st ¶) which states in part "Amendments to the specification.....must unambiguously identify the paragraph to be modified either by paragraph number (see MPEP § 608.01), page and line, **or any other unambiguous method**, ..."(emphasis supplied). Applicants respectfully submit that reference to the paragraph numbers of the published patent application provides such an unambiguous identification as well as saves effort for both Applicants and USPTO by identifying and correcting in this single submission errors possibly introduced in the USPTO printing process as well as other changes Applicants desire in response to actions by the Examiner. Applicants have

included dual references citing both the paragraphs PGPUB document (i.e. [00xx]) as well as the page and line number (i.e. (page x, line x) of the submitted application.

Amendments to the Specification:

Applicants have added a sentence at the end of paragraph [0001] (page 1, line 23) that explicitly gives the definition of a semi-solid dressing as listed by the Japanese Agricultural Standard as of November 18, 2002. A copy of the Japanese Agricultural Standard as of November 18, 2002 has been submitted as part of this response.

Amendments to the Abstract:

Applicants have amended the abstract to make the abstract consistent with claim 1 as currently amended. The content of the protein has been listed as 0%, replacing the 0.5% in the previous version of the abstract.

Rejections under 35 U.S.C. § 103

Claims 1, 2, 5, and 7-9 are presently in the application.

Claims 1, 2, 5, and 7-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Oles (US 4,145,451) in view of Qiang *The production of Starch modified by alkenyl succinic anhydrides and its use in food industry (2000)*, Cain (US 5,756,143), and Hamm (US 2003/0203096).

Claims 3-4, 6 and 10 have been previously canceled; claim 1 is currently amended; and claims 2, 5, 7-9 remain as previously presented.

Claim 1 has been amended to add bullet-list letter references to the elements. Applicants have done this as a simple format change and believe that it makes the claim easier to read and understand than the prior version. Claim 1 has been amended to recite a semi-solid acid emulsified mayonnaise-like food that is semi-solid as defined by the Japanese Agricultural Standards (i.e. viscosity > 30,000 mPa.s) at 20C. A copy of the relevant portion of the Japanese Agricultural Standards has been translated by the Applicants and included with this response under a separate document. Support for this element may be found in the "Examples" section (paragraphs [0065]-[0070] (page 25, line 16-page 30, line 3)) where Example 1 and Example 2 describe a semi-solid acid emulsified mayonnaise-like food in compliance with the Japanese Agricultural Standards definition of semi-solid pursuant to paragraph [0001] (page 1, line 6). The detailed compositions of Example 1 and Example 2 are listed in Tables 1 and 2 respectively. The viscosities of Example 1 and Example 2 at 20C are 198,800 mPa.s and 163,000 mPa.s respectively. The results of the stability of Examples 1 and 2 with respect to viscosity, shape holding ability, flavor, and oral solubility are illustrated in Tables 8-12.

During the telephone interview held on August 18, 2010, an additional element was discussed that "specifies that the viscosity of the semi-solid acid emulsified

mayonnaise-like food increases between 0.6% and 6.7% after being stored at 20C for 7 weeks". After discussion with the Inventors, it was decided that this element is actually a "result" of the formulation of the present invention and not part of the inventive elements of the invention. Therefore, this element has been removed from the currently amended claim 1. Applicants feel that the present invention is properly described in currently amended claim 1.

Comparative Example-3 and Comparative Example-4 are the best comparative examples to compare with the Applicants' formulations of Example-1 and Example-2. One difference lies in that Comparative Example-3 and Comparative Example-4 contain 1.0% esterified starch with octenylsuccinic acid which is 0.2% below the lower limit described in claim 1. Also, as noted above, Comparative Example-3 comprises a final protein concentration of 0.74% by mass in the form of egg protein and Comparative Example-4 comprises a final protein concentration of 0.54% by mass in the form of soy protein. Each of these levels is above the limit described in amended claim 1.

Comparing the results in Tables 8-12, it can be shown that Comparative Examples 1-4 are inferior to Examples 1 and 2 with respect to viscosity, shape holding ability, flavor, and oral solubility.

The results summarized in Table 9 indicate that the Applicants' formulations (Example-1, Example-2) do not show evidence of separation of the components after storage and repeated refrigeration-thaw cycles (see [0087] (page 44, line 4)). In contrast, both Comparative Example-3 and

Comparative Example-4 each exhibit evidence of the separation of the oil phase (Comparative Example-3, Comparative Example-4) and evidence of the separation of the water phase (Comparative Example-4) after storage and repeated refrigeration-thaw cycles (see [0087] (page 44, line 4)).

The results summarized in Table 10 indicate that the Applicants' formulations (Example-1, Example-2) do not show evidence of degradation of shape retaining ability and oral solubility. In each case, the samples were rated as "G" (see [0053]-[0060] (page 24, lines 3-14) for evaluation conditions). In contrast, Comparative Example-3 only rated a score of "M" for shape retaining ability and "P" for oral solubility (see [0053]-[0060] (page 24, lines 3-14) for evaluation conditions). Comparative Example-4 rated a score of "M" for both shape retaining ability and oral solubility (see [0053]-[0060] (page 24, lines 3-14) for evaluation conditions).

Table 11 indicates that the Applicants' formulations (Example-1, Example-2) retained their smooth appearance as either "E" or "G" (see [0061]-[0064] (page 25, lines 1-14) for evaluation conditions) over a storage period of 7 months.

Table 12 indicates that the Applicants' formulations (Example-1, Example-2) actually increased in viscosity after a storage period of 7 weeks. In contrast, both Comparative Example-3 and Comparative Example-4 showed a decrease in viscosity, indicating a lack of stability for the formulations.

Semi-solid dressings have disadvantages including the characteristic that the viscosity tends to decrease with time during storage. This is evident from the results shown in Table 12 for the comparative examples. Additionally, the decrease in the viscosity with the elapse of time has a possibility of causing deterioration in flavor. Previous attempts to address these issues did not produce satisfactory results with respect to viscosity stability, flavor stability, and shape stability (see [0004] (page 2, line 18)). The results highlighted above demonstrate that the present invention has successfully addressed the issues of the viscosity decrease and deterioration of flavor in semi-solid dressings.

The Oles patent (4,145,451) describes a number of different formulations of food products. The closest formulation to the present invention is the "typical high oil-containing dressing" as illustrated in the Table at 3:10-20. The table lists various ranges and lists a specific example. Although the range in the table includes a protein value of 0%, all of the specific examples list an egg yolk (i.e., protein) content of 5.0 weight percent. Oles continues to evaluate 68 different dressing formulations. In each case, the formulations contained 5.0 percent egg yolk solids (see 5:12-14).

Applicants submit that the Oles patent, when taken as a whole, teaches away from the present invention by urging the reader to incorporate egg yolk proteins into each and every recipe. The Oles patent does not disclose that degradation in flavor and a reduction in viscosity with the

passage of time of an acidic mayonnaise-like food can be suppressed in a food that substantially does not contain protein. Additionally, that patent mentions the emulsification of the starch component only in passing (see 2:37-51). The Oles patent does not mention the esterification of the starch. The primary focus of the Oles patent is the preservation of food product formulations by the addition of phosphoric acid and acetic acid. The goal is to prevent the growth of yeasts and molds. The Applicants believe that the Oles patent does not contain sufficient information to disclose the present invention.

The Examiner has used the Qiang document to supplement the Oles patent. The Qiang document describes the esterification of the starch with octenylsuccenic acid. The Qiang document states that the esterification of the starch is not an emulsifying agent (see section 3.1 - pages 6-7). Additionally, the Qiang document does not discuss the other important aspects of the presently claimed invention such as the long term stability of the viscosity and flavor of semi-solid dressings. Applicants repeat the assertion that the Qiang document refers only to liquid dressings as confirmed by the affidavit previously submitted by Sato. Clearly these are liquid dressings as defined by the Japanese Agricultural Standards cited previously and therefore are not relevant prior art for the invention described in currently amended claim 1. Applicants submit that there is no motivation or suggestion in either the Oles patent or the Qiang document that would cause a "person having ordinary skill in the art" (PHOSITA) to combine the teachings of these references to arrive at the invention as claimed in amended claim 1.

The Examiner has used the Cain patent (5,756,143) to address the thickening polysaccharide element of the present invention. The Examiner has cited the section found at 9:1-24 as relevant to the present invention. This section of the Cain patent describes a salad dressing food product as Example VI. The formulation as listed in Cain-Example-VI (9:1-13) contains 0.8 weight percent of dried egg yolk. The viscosities of the salad dressing food product is found in Table 14 and are 5940 and 5766 cP (1cP = mPa.s) for the Reference and the Example VI respectively. Clearly these are liquid dressings as defined by the Japanese Agricultural Standards cited previously and therefore are not relevant prior art for the invention described in currently amended claim 1. Applicants submit that there is no motivation or suggestion in the Oles, Qiang, or Cain references that would cause a PHOSITA to combine the teachings of these references to arrive at the invention as claimed in amended claim 1.

The Examiner has used the Hamm published application (2003/0203096) to address the waxy cornstarch element of the presently claimed invention. Each of the formulations described in Hamm contain egg protein (see [0024]) as an essential ingredient. The Hamm application discloses 4 primary examples (see tables 5-8). Each of these is a base formulation that contains egg protein. Examples 5-19 are derivations of these 4 primary formulations made by adding additional ingredients. The Hamm application does not discuss the benefits or detriments of including or not including egg proteins in the formulation and their effect on the stability of the

viscosity, flavor, and other factors discussed above. The Hamm application does not disclose that degradation in flavor and a reduction in viscosity with the passage of time of an acidic mayonnaise-like food can be suppressed in a food that substantially does not contain protein. Applicants submit that there is no motivation or suggestion in the Oles, Qiang, Cain, or Hamm references that would cause a PHOSITA to combine the teachings of these references to arrive at the invention as claimed in amended claim 1.

The Applicants submit that none of the cited references disclose individually, or in combination, the beneficial effect of the elements and their ranges described in currently amended claim 1. In fact, Applicants submit that a PHOSITA who had the 4 references before him would be taught away from the invention described in claim 1. That is, the examples and discussions in the references would lead the PHOSITA to include protein in the form of egg in the formulation. Additionally, none of the references give the PHOSITA suggestions or motivation on how to overcome the problems of viscosity and flavor degradation over time that is solved by the present invention. Two of the references describe liquid dressing formulations and are not relevant art to a semi-solid dressing formulation.

The previous discussion wherein the Applicants' formulations as described in Example-1 and Example-2 were compared to Comparative Example-3 and Comparative Example-4 demonstrates the importance of the elements and their ranges described in currently amended claim 1. Both Comparative Example-3 and Comparative Example-4 exhibited poor stability with respect to the attributes of viscosity, shape holding

ability, flavor, and oral solubility with respect to long term storage (i.e., ~7 weeks) while being very similar in content to the Applicants' formulations. Applicants submit that it would not have been obvious to a PHOSITA to prepare a food product formulation with the benefits of the presently claimed invention by combining the cited references. In the cited prior art, no food products have been disclosed with the benefits of the presently claimed invention, even with the large number of examples being used in the various references. Therefore, the Applicants respectfully submit that claim 1 is now considered to be in condition for allowance and action to that effect is most earnestly solicited.

MPEP § 2143.03 states in part "All words in a claim must be considered in judging the patentability of that claim against the prior art." Applicants respectfully submit that claim 1 (as amended) contains elements not taught or rendered obvious by the prior art whether considered singly or in combination.

MPEP § 2143.03, further states, "If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious." Since claims 2, 5, and 7-9 are dependent from amended claim 1, therefore they are also patentable.

The claims, as they now stand, are considered to be in condition for allowance and action to that effect is most earnestly solicited.

Respectfully submitted,

September 10, 2010

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